

What is claimed is:

- 1 1. An electronic apparatus comprising:
 - 2 a function module having a multilayer wiring unit including
 - 3 a first signal wiring corresponding to an internal layer wiring,
 - 4 a first signal via, a first reference potential wiring, a first
 - 5 signal pad to which the first signal wiring is connected through
 - 6 the first signal via, a first reference potential pad that
 - 7 surrounds the periphery of the first signal pad and to which
 - 8 the first reference potential wiring is connected, and a first
 - 9 reference potential via connected to the first reference
 - 10 potential pad;
 - 11 a multilayer circuit board including a second signal wiring
 - 12 corresponding to an internal layer wiring, a second signal via,
 - 13 a second reference potential wiring, a second signal pad to which
 - 14 one end of the second signal wiring is connected through the
 - 15 second signal via, a second reference potential pad that
 - 16 surrounds the periphery of the second signal pad and to which
 - 17 one end of the second reference potential wiring is connected,
 - 18 a second reference potential via connected to the second
 - 19 reference potential pad, a third signal pad to which the other
 - 20 end of the second signal wiring is connected, and a third reference
 - 21 potential pad to which the other end of the second reference
 - 22 potential wiring is connected;
 - 23 a first conductor that connects the first signal pad and
 - 24 the second signal pad; and
 - 25 a second conductor that connects the first reference
 - 26 potential pad and the second reference potential pad,

27 wherein a central conductor of a coaxial cable is connected
28 to the third signal pad, and an outer conductor of the coaxial
29 cable is connected to the third reference potential pad.

1 2. An electronic apparatus according to claim 1, wherein
2 the first conductor is surrounded by a plurality of the second
3 conductors.

1 3. An electronic apparatus according to claim 1, wherein
2 in at least one of the multilayer wiring unit and the multilayer
3 circuit board, the signal via is surrounded by a plurality of
4 the reference potential vias.

1 4. An electronic apparatus according to claim 1, wherein
2 in at least one of the multilayer wiring unit and the multilayer
3 circuit board, the signal wiring is nipped by the two reference
4 potential wirings each wider than the signal wiring.

1 5. An electronic apparatus according to claim 1, wherein
2 the multilayer wiring unit includes a fourth pad connected to
3 the first reference potential pad, and the multilayer circuit
4 board includes a fifth pad connected to the second reference
5 potential pad and is provided with a third conductor that connects
6 the fourth pad and the fifth pad.

1 6. An electronic apparatus according to claim 1, wherein
2 one of the multilayer wiring unit and the multilayer circuit

3 board includes a fourth pad connected to the reference potential
4 pad, and the other thereof includes a fifth pad unconnected to
5 any ones and is provided with a third conductor that connects
6 the fourth pad and the fifth pad.

1 7. An electronic apparatus according to claim 1, wherein
2 the multilayer wiring unit includes a fourth pad unconnected
3 to any ones, and the multilayer circuit board includes a fifth
4 pad unconnected to any ones and is provided with a third conductor
5 that connects the fourth pad and the fifth pad.

1 8. An electronic apparatus according to claim 1, further
2 including a conductor case that is connected to the third
3 reference potential pad and the outer conductor of the coaxial
4 cable and thereby surrounds a connecting portion of the coaxial
5 cable.

1 9. An electronic apparatus according to claim 1, wherein
2 each conductor is any one of a bump, a ball and solder.

1 10. An electronic apparatus according to claim 1, wherein
2 the function module is a sensor module having the multilayer
3 wiring unit formed with a thin film.